SEOUENCE LISTING

- (1) GENERAL INFORMATION
 - (i) APPLICANT: Lynn Bergmeyer

Thomas J. Cummins

John B. Findlay

JoAnne H. Kerschner

- (ii) TITLE OF THE INVENTION: DIAGNOSTIC

 COMPOSITIONS, ELEMENTS, METHODS AND TEST KITS

 FOR AMPLIFICATION AND DETECTION OF HUMAN CMV

 DNA USING PRIMERS HAVING MATCHED MELTING

 TEMPERATURES
- (iii) NUMBER OF SEQUENCES: 26
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Eastman Kodak Company,
 Patent Legal Staff
 - (B) STREET: 343 State Street
 - (C) CITY: Rochester
 - (D) STATE: New York
 - (E) COUNTRY: U.S.A.
 - (F) ZIP: 1 4 6 5 0 2 2 0 1
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB storage (IBM)
 - (B) COMPUTER: IBM PS/2
 - (C) OPERATING SYSTEM: MS-DOS Version 3.3
 - (D) SOFTWARE: PC-8 (Word for Windows)
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: To Be Assigned
 - (B) FILING DATE: To Be Assigned
 - (C) CLASSIFICATION: To Be Assigned
- (vii) PRIOR APPLICATION DATE: None
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Tucker, J. Lanny
 - (B) REGISTRATION NUMBER: 27,678
 - (C) REFERENCE/DOCKET NUMBER: 67270

- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: (716) 722-9332
 - (B) TELEFAX: (716) 477-4646
- (2) INFORMATION FOR SEQ ID NO:1
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: U.S. 5,147,777
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1

GAGGCTATTG TAGCCTACAC TTTGG 25

- (3) INFORMATION FOR SEQ ID NO:2
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: U.S. 5,147,777
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2

CAGCACCATC CTCCTCTTCC TCTGG 25

- (4) INFORMATION FOR SEQ ID NO:3
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3

TGCACTGCCA GGTGCTTCGG CTCAT 25

- (5) INFORMATION FOR SEQ ID NO:4
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: U.S. 5,147,777
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4

CACCACGCAG CGGCCCTTGA TGTTT 25

| (6) | INFO | RMATI | ON FOR | SEQ II | ON C | 5:5 | |
|-----|------|-------|---------|--------|------|----------|----|
| | (i) | SEQUI | ENCE CH | ARACTI | ERIS | STICS: | |
| | | (A) | LENGTH | : 30 | nuc | cleotide | es |
| | | (B) | TYPE: | Nucle | eic | acid | |
| | | (C) | STRAND | EDNES | S: | Single | |

- (D) TOPOLOGY: Linear
 (ii) MOLECULE TYPE: Probe for hCMV DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: U.S. 5,147,777
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5

GGTGTCACCC CCAGAGTCCC CTGTACCCGC 30

- (7) INFORMATION FOR SEQ ID NO:6
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Probe for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: U.S. 5,147,777
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6

GACACAGTGT CCTCCCGCTC CTCCTGAGCA 30

- (8) INFORMATION FOR SEQ ID NO:7
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Probe for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: U.S. 5,147,777
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7

GTGGAAGGCG GCTCGCTGGA AGCCGGTCGT 30

- (9) INFORMATION FOR SEQ ID NO:8
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Probe for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: U.S. 5,147,777
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8

GAACCGAGGG CCGGCTCACC TCTATGTTGG 30

| (10) | INFORMATION FOR SEQ ID NO:9 |
|------|--|
| | (i) SEQUENCE CHARACTERISTICS: |
| | (A) LENGTH: 41 nucleotides |
| | (B) TYPE: Nucleic acid |
| | (C) STRANDEDNESS: Single |
| | (D) TOPOLOGY: Linear |
| | (ii) MOLECULE TYPE: Probe for HIV-I DNA |
| | (iii) HYPOTHETICAL: No |
| | (iv) ANTI-SENSE: No |
| | (vi) ORIGINAL SOURCE: Synthetically prepared |
| | (vii) IMMEDIATE SOURCE: Same |
| | (x) PUBLICATION INFORMATION: Unknown |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9 |
| | |
| AT | CCTGGGAT TAAATAAAAT AGTAAGAATG TATAGCCCTA C 41 |
| | |
| (11) | INFORMATION FOR SEQ ID NO:10 |
| | (i) SEQUENCE CHARACTERISTICS: |
| | (A) LENGTH: 28 nucleotides |
| | (B) TYPE: Nucleic acid |
| | (C) STRANDEDNESS: Single |
| | (D) TOPOLOGY: Linear |
| | (ii) MOLECULE TYPE: Primer for HIV-I DNA |
| | (iii) HYPOTHETICAL: No |
| | (iv) ANTI-SENSE: No |
| | (vi) ORIGINAL SOURCE: Synthetically prepared |
| | (vii) IMMEDIATE SOURCE: Same |
| | (x) PUBLICATION INFORMATION: Unknown |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10 |
| | |
| | AGTGGGGGGA CATCAAGCAG CCATGCAA 28 |

(12) INFORMATION FOR SEQ ID NO:11

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 26 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Primer for HIV-I DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11

CTTGGTTCTC TCATCTGGCC TGGTGC 26

(13) INFORMATION FOR SEQ ID NO:12

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Primer for HIV-I DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12

TAGCACCCAC CAGGGCAAAG AGAAGAGT 28

(14) INFORMATION FOR SEQ ID NO:13

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Primer for HIV-I DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13

AGATGCTGTT GCGCCTCAAT AGCCCTCA 28

(15) INFORMATION FOR SEQ ID NO:14

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Probe for HIV-I DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14

GAGACCATCA ATGAGGAAGC TGCAGAAT 28

(16) INFORMATION FOR SEQ ID NO:15 SEQUENCE CHARACTERISTICS: (i) LENGTH: 28 nucleotides (A) (B) TYPE: Nucleic acid (C) STRANDEDNESS: Single (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: Probe for HIV-I DNA (iii) HYPOTHETICAL: No (iv) ANTI-SENSE: No (vi) ORIGINAL SOURCE: Synthetically prepared (vii) IMMEDIATE SOURCE: Same (x) PUBLICATION INFORMATION: None (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15 GTGCAGCAGC AGAACAATTT GCTGAGGG 28 (17) INFORMATION FOR SEQ ID NO:16 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 27 nucleotides (B) TYPE: Nucleic acid (C) STRANDEDNESS: Single (D) TOPOLOGY: Linear (ii) MOLECULE TYPE: Primer for hCMV DNA (iii) HYPOTHETICAL: No (iv) ANTI-SENSE: No (vi) ORIGINAL SOURCE: Synthetically prepared (vii) IMMEDIATE SOURCE: Same (x) PUBLICATION INFORMATION: None (xi) SEOUENCE DESCRIPTION: SEO ID NO:16

CATTCCCACT GACTTTCTGA CGCACGT

27

- (18) INFORMATION FOR SEQ ID NO:17
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 24 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17

TGAGGTCGTG GAACTTGATG GCGT 24

- (19) INFORMATION FOR SEQ ID NO:18
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 nucleotides
 - (B) TYPE: Nucleic acid`
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Probe for hCMV DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18

GGTCATCGCC GTAGTAGATG CGTAAGGCCT 30

- (20) INFORMATION FOR SEQ ID NO:19
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 26 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for avian endogenous provirus ev-1 DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19

GGAATGACGC AAGGACATAT GGGCGT 26

- (21) INFORMATION FOR SEQ ID NO:20
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 26 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for avian endogenous provirus ev-1 DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20

CCCAGGTGCA CACCAATGTG GTGGAT 26

(22) INFORMATION FOR SEQ ID NO:21

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Primer for positive control target DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21

GGACTGTGCG CGTTGTATAC CCTGC 25

- (23) INFORMATION FOR SEQ ID NO:22
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for positive control target DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22

ACTCCCGAAG CGAATGGCAC GTGGA 25

(24) INFORMATION FOR SEQ ID NO:23

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Primer for positive control target DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23

CATAGCTTGT GCCCGTGTGG CACGT 25

- (25) INFORMATION FOR SEQ ID NO:24
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Primer for positive control target DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24

CCAAGACGAG ACCGTCAGAG CTGGT 25

(26) INFORMATION FOR SEQ ID NO:25

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 26 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE: Probe for avian endogenous provirus ev-1 DNA
- (iii) HYPOTHETICAL: No
- (iv) ANTI-SENSE: No
- (vi) ORIGINAL SOURCE: Synthetically prepared
- (vii) IMMEDIATE SOURCE: Same
- (x) PUBLICATION INFORMATION: None
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25

AAGCTGTTGC CGCCATCAAA TAAACG 26

- (27) INFORMATION FOR SEQ ID NO:26
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 nucleotides
 - (B) TYPE: Nucleic acid
 - (C) STRANDEDNESS: Single
 - (D) TOPOLOGY: Linear
 - (ii) MOLECULE TYPE: Probe for positive control target DNA
 - (iii) HYPOTHETICAL: No
 - (iv) ANTI-SENSE: No
 - (vi) ORIGINAL SOURCE: Synthetically prepared
 - (vii) IMMEDIATE SOURCE: Same
 - (x) PUBLICATION INFORMATION: None
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26

CTGCGTTAGA CCGAGAACTG TGGATAAAGG 30

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